URBAN SYSTEMS ENGINEERING AND RELATED SERVICES JANUARY 4, 2013

STATE PROJECT NO. H.004608 FEDERAL AID PROJECT NO. DE-3105(506) CHOUDRANT I-20 SERVICE ROAD LINCOLN PARISH

Under Authority granted by Title 48 of Louisiana Revised Statutes, the Louisiana Department of Transportation and Development (DOTD) hereby issues a Request for Qualification Statements (RFQ) on DOTD Form 24-102 (24-102), "Professional Engineering and Related Services", revised November 2011, from Consulting Firms (Consultant) to provide engineering and related services. All requirements of Louisiana Professional Engineering and Land Surveying (LAPELS) Board must be met at the time of submittal. One Prime-Consultant/Sub-Consultant(s) will be selected for this Contract.

# Project Manager – Ms. Peggy Jo Paine, P.E.

All inquiries concerning this advertisement should be sent in writing to Alan.Dale@LA.gov.

### PROJECT DESCRIPTION

This is an Urban Systems project. The Contract shall be between the Consultant and Village of Choudrant, hereinafter referred to as the "Entity".

The selected Consultant will perform Stage 3 Engineering and Related services to design a new two lane rural roadway (RL-3 classification) consisting of 12' lanes and 8' shoulders, with curb and gutter. Roundabouts will be designed at the intersections as described in the **Traffic Engineering Section**. The new off-system roadway will extend from Pipes Road to LA 820, a distance of approximately one (1) mile. A traffic study will be performed at the intersections at Pipes Road and at LA 820 to determine the type of intersection control (i.e. roundabout, signalized, 4-way, etc.) The design of the project will be in accordance with the Selected Alignment shown in figure 4 (page 2-3) of the approved Environmental Document.

#### SCOPE OF SERVICES

The services to be rendered for this Project shall consist of the following Stages and Parts:

Stage 3: Design

Part I: Surveying Services

- (a) Topographic Survey
- (b) Title Research Reports
- (c) Property Survey
- (d) Title Updates
- (e) Right-of-Way (R/W) Maps
- (f) Title Take-Off

Part II: R/W Acquisition and Utility Relocation

Part III: Preliminary Plans

- (a) Subsurface Investigation (Soil borings)
- (b) Traffic Engineering

Part IV: Final Plans

Stage 5: Construction

Part I: Construction Support

## **STAGE 3: DESIGN**

# **PART I: SURVEYING SERVICES**

## **Topographic Survey**

The project is on a new alignment which is located within Lincoln Parish, north of I-20, in the town of Choudrant, Louisiana. The project begins at a point approximately 1,225 feet north of the intersection of I-20 and the Pipes Road overpass, as measured along the centerline of Pipes Road, then proceeds in an easterly direction for approximately 4,930 feet to an end point approximately 720 feet north of the intersection of LA 145 and LA 820, as measured along the centerline of LA 820.

A full topographic survey, property survey, right of way map, title take-offs, title research reports and title updates are required for this project. Right of way shall be required along the length of the new project alignment.

The topographic survey and survey limits for this project will require a digital terrain model (DTM) width of approximately 300 feet, being 150 feet right, and 150 feet left, along the entire length of the new project alignment.

The Consultant shall be responsible for all services required to make a complete topographic survey, in English units of measure, as required for the proper design and layout of the project. Aerial photogrammetry may be used when feasible and by written agreement with the DOTD in developing the topographic surveys. This work shall include, for the control of the field survey and later use, the establishment of referenced iron rods along the Project, as may be necessary, to define the centerline and of a referenced system of bench marks on a closed level circuit. The survey shall also include the location and establishment of ownership of all utilities in the way of construction as specified in the manual. The Consultant's attention is specifically directed to requirement in the manual whereby a sketch of the survey line shall be submitted to the DOTD

Location and Survey Administrator for approval immediately after the initial establishment of said line and prior to proceeding further with the survey. The Project survey control and horizontal alignment shall be based on the Louisiana State Plane Coordinate System, (NAD-83-92), as determined by G.P.S. observation.

The survey limits and DTM along Pipes Road will begin approximately 350 feet south of its intersection with the new project alignment, requiring a width of approximately 50 feet to the left of the Pipes Road centerline, then proceeding that width in a northerly direction along the centerline of Pipes Road for a total distance of approximately 650 feet, which is approximately 300 feet north of the intersection of Pipes Road and the new project alignment. The remaining DTM along Pipes Road will begin approximately 350 feet south of its intersection with the new project alignment, requiring a width of approximately 425 feet to the right of the Pipes Road centerline, then proceeding that width in a northerly direction along the Pipes Road centerline to its intersection with the new project alignment, then changing to a width of approximately 50 feet to the right of the Pipes Road centerline and proceeding that width in a northerly direction along the Pipes Road centerline for a total distance of approximately 300 feet.

The survey limits and DTM along LA. 820 will begin approximately 465 feet south of its intersection with the new project alignment, requiring a width of approximately 50 feet to the right of the LA 820 centerline, then proceeding that width in a northerly direction along the centerline of LA 820 for a total distance of approximately 765 feet, which is approximately 300 feet north of the intersection of LA 820 and the new project alignment. The remaining DTM along LA 820 will begin approximately 465 feet south of its intersection with the new project alignment, requiring a width of approximately 380 feet to the left of the LA 820 centerline, then proceeding that width in a northerly direction along the LA 820 centerline to its intersection with the new project alignment, then changing to a width of approximately 50 feet to the left of the LA 820 centerline and proceeding that width in a northerly direction along the LA 820 centerline for a total distance of approximately 300 feet.

A drainage map is required and all work shall be in English units of measurement.

## Title Work

The title work shall consist of obtaining the necessary Title Research Reports. The term "Title Research Report" is defined as a report of the ownership of the current property owner(s) with addresses, acquisition data, assessment and tax information, description of the property, conveyances of full ownership, conveyances of other rights (servitudes, leases, restrictions, etc.) existing R/W, recorded plats, and copy of the last acquisition. The Consultant will provide a title research report for each parcel. Title work must be performed by a consultant listed on the current DOTD Real Estate Section's approved Titlework Panel list.

# **Property Survey**

The Property Survey shall consist of all Investigations, Studies, and Field Property Surveys required for the preparation of Base R/W Map. A property survey is necessary for each required parcel and shall be based on the same survey control as the Topographic Survey. Upon completion of the property survey, the consultant will notify the Location and Survey Administrator, in writing, and provide an electronic text file listing coordinates and descriptions of all found monuments, a "PDF" copy of all documents (plats, maps, etc) used to determine property line locations and a "PDF" copy of title take-offs or title research reports used to determine property line locations. The Consultant shall also provide a sketch in Microstation and "PDF" formats showing all surveyed property lines and existing right of way with ties to project centerline.

### **Title Updates**

The title updates shall consist of obtaining Updates of the originally acquired Title Research Reports, if the Reports are more than six months old. These Updates shall be used in the preparation of the final R/W maps and also by the DOTD's Real Estate Section in acquiring title to the property required for the construction project.

# R/W Maps

The Right of Way maps shall consist of all services required to complete the Base (60%) and Final R/W Maps, described more specifically as follows:

The Base R/W Map shall show the adopted project centerline, all existing R/W, limits of construction, appropriate topography (residences, commercial buildings, structures, etc.), parcel line locations and ownerships, and required taking lines, with ties to the adopted project centerline. Individual parcel metes and bounds and precise area calculations are not required at this time, however, the approximate area of each required parcel and remaining area shall be determined and shown on the base map. These Maps shall be in the same standard format and shall form the basis for the Final R/W map. Specifically, this work shall be performed in accordance with all principles and objectives set forth in the latest issue of the DOTD's Location and Survey Manual, although currently acceptable surveying standards and methods, as approved by the Location and Survey Administrator, may be used. For purposes of a joint review meeting, two sets of the Base R/W Map along with one copy of each of the Title Reports used in preparation of the Base R/W Map, shall be furnished at approximately 60% completion, and reviewed by a DOTD Team. Appropriate revisions recommended for inclusion in the Final R/W Map shall be addressed by the Consultant.

The Final R/W Map preparation shall include all activities necessary to complete the Final R/W Map and shall be performed in accordance with the requirements specified in the latest issue of the DOTD's <u>Location and Survey Manual</u>. The Final R/W Map shall be the Base R/W Map as described above, and shall also include all revisions recommended by the Joint Review Team, parcel metes and bounds, parcel acquisition

blocks, parcel areas, remaining areas, Lambert coordinates of all breaks in the required R/W and P.C.'s and P.T.'s of curves, and shall be accompanied by an electronic file containing the DOTD COGO program input commands for creating parcel descriptions suitable for use by the DOTD's Real Estate Section. Two sets of prints of the Final R/W Map shall be submitted for final review. Note that all work is to be completed in English units of measurements.

## Title Take-Off

The title take-off is defined as a report of the deed of ownership of the current property owner, and all survey documents, (plats, maps, etc.) associated with the current ownership deed. One take-off shall be obtained for each parcel and a copy of each take-off shall be furnished to the DOTD's Location and Survey Section with the submittal of the Base Right-of-Way Map.

The original and three copies of the Title Research Reports and the original and three copies of all Title Updates shall be furnished to the Location and Survey Administrator along with the Final R/W Map submittal, for forwarding to the Real Estate Section.

# **Submittal Schedule**

Property Survey Data 45 Days from NTP 60% Base Right of Way Map \* 27 Days after authorization to proceed with Base Maps 18 Days after authorization to proceed with Final Maps

### PART II: RIGHT-OF-WAY ACQUISITION AND UTILITY RELOCATION

### **Project Management and Administration Services**

- Comply with DOTD's
  - Title Research Manual
  - Operations Manual
  - o 49 CFR
  - o USPAP
  - All other applicable laws and regulations
- Attend project kick-off meeting and other meetings
- Provide project field office if directed by DOTD
- Submit a service plan including an appraisal plan and a request for approval of all individuals who are to provide services on this project

<sup>\*</sup> After completion of the Property Survey, the Location and Survey Task Manager shall issue an authorization to proceed with 60% Base Right of Way Maps.

<sup>\*\*</sup> After Joint Plan Review Meeting, the Location and Survey Task Manager shall issue an authorization to proceed with Final Right of Way Maps.

- Submit, to DOTD for approval, resumes of staff not already approved in consultant's bid proposal
- Develop project schedule and provide periodic updates as directed by DOTD
- Provide monthly invoices
- Maintain AARS status
- Train and manage sub-consultants
- Testify on behalf of DOTD in legal proceedings
- Implement and maintain quality assurance and quality control program and practices to ensure compliance with DOTD's policy
- Coordinate with Public Information Office and attend public hearings and meetings as required
- Perform any other tasks and activities necessary to complete project management and administrative services

# **Title Research Report Services**

- Consult Tobin Maps, field rolls, preliminary plans, and assessment records to determine current parcel owner(s) for each parcel
- Research conveyance records and locate and copy deed of acquisition of current owner(s) for each parcel
- Verify from property description that correct, current ownership deed has been located for each parcel
- Make note of book, page, and entry/item/document number, document date and date of recordation for each parcel
- For each parcel make note of the following:
  - Vendee's name(s)
  - Ownership interest
  - Gender
  - Whether ownership is separate or in community
  - Marital status
  - o Spouse's name if married
  - Name(s) of former spouse(s)
  - o Domiciliary address
  - Mailing address
  - Social Security Number
  - Make note of same information for vendor for each parcel
- Search records for sell offs, servitudes granted or leases, including mineral leases, affecting rights of ownership for each parcel
- Search records for and note existing highway right of way
- Search conveyance records for all acts involving the present owner(s) and each predecessor in title for a time period covering the lesser of three(3) valid transfers or thirty (30) years

- O Should three (3) transfers not date back eleven (11) years abstractor must search as many valid transfers as necessary to complete an eleven (11) year search for each parcel
- Make a copy of and include applicable plat(s) or map(s)
- Search tax tolls to verify that taxes have been paid for last three (3) years. All assessment information is to be copied verbatim from assessment rolls
- Compile title research reports with extracted information beginning with the current owner(s) and then proceeding back the required number of transactions using DOTD's provided forms and format
- Include in each title research report dated signature of the person who performed the research and prepared the report
- Submit title research reports in triplicate original
- Make corrections and provide information as directed by DOTD
- Perform any other tasks and activities necessary to complete title research services

### **Title Research Report Update Services**

- Beginning with the last conveyance listed in the original title research report go forward with a search of all conveyances from that date to the present date
- Make note of book, page, and entry/item/document number, document date and date of recordation for each new transaction for each parcel
- For each parcel make note of the following:
  - Vendee's name(s)
  - Ownership interest
  - Gender
  - Whether ownership is separate or in community
  - o Marital Status
  - o Spouse's name if married
  - Names of former spouse(s)
  - Domiciliary address
  - Mailing address
  - o Social Security number
  - o Make note of same information for vendor for each parcel
- Search records for sell offs, servitudes granted or leases, including mineral leases, affecting rights of ownership for each parcel
- Search records for and note existing highway right of way
- Make a copy of and include applicable plat(s) or map(s)
- Search tax rolls to verify that taxes have been paid for the last three (3) years. All assessment information is to be copied verbatim from the assessment rolls
- Compile title research report update with extracted information beginning with the last owner listed in the original title research report
- For the current/updated owner provide the following:
  - Owner's full name

- Ownership interest
- o Gender
- Whether ownership is separate or in community
- Marital status
- o Spouse's name if married
- Names of former spouses
- o Domiciliary address
- Mailing address
- Social Security number
- Include in each title research report dated signature of the person who performed the research and prepared the report
- Submit updated title research reports in triplicate original
- Make corrections and provide information as directed by DOTD
- Perform any other tasks and activities necessary to complete title research update services

### **Appraisal Services**

- Field review the project
- Meet with the review appraiser and the relocation assistance agent and conduct an onsite inspection of each parcel and determine the items which are to be considered realty and the items which are to be considered personalty.
- Identify the appropriate appraisal format (i.e., Form A, Form B or Form C)
- Verify that title research reports and maps agree in detail
- Mail a property owner notification letter to each property owner(s)
- Schedule a meeting with and meet on site with property owner(s) for each parcel
- Document meeting
- Define the appraisal problem by identifying:
  - Fixtures to be valued
  - o Property rights to be acquired
  - o Objective of appraisal
  - o Definition of value
  - o Date of value
  - Other limiting conditions for each parcel
- Develop a preliminary survey and appraisal plan including:
  - o Data required
  - Data sources
  - Time constraints for each parcel.
- Collect general economic data including:
  - o Market
  - Financial
  - o Economic
  - Trend and location data including
  - o Regional
  - Community

- Neighborhood to be analyzed in determining the before value for the subject property
- Collect specific appraisal property data including:
  - o Title
  - Zoning
  - o Physical characteristics of the site
  - o Improvements data
  - Sales data
  - Listings
  - Costs
  - Rental data
- Determine highest and best use for subject property and provide an analysis and justification
- Determine approaches to value that are relevant to the subject property
- Appraise the parent tract
- Value the land in the area of acquisition
- Value the improvements in the area of acquisition
- Reconcile the approaches to value on the improved properties
- Analyze the affect of the acquisition on the remainder
- Estimate the loss in value to the remainder, if any, resulting from the acquisition of the parcel
- Identify the cost of any cures that will eliminate or mitigate damages
- Estimate any additional compensation to which the owner is entitled
- Compose an appraisal report in the form (i.e., Form A, Form B, or Form C) that corresponds to the land use type of the property being appraised and to the complexity of the appraisal assignment
- Sign and date the appraisal report
- Submit the appraisal report to DOTD electronically
- Compile and submit a master binder, which is to include :
  - Inspected comparable sales
  - Verified comparable sales
  - Photographs of comparable sales
- Provide revisions and updates to appraisal reports as directed by DOTD
- Request right of way staking services as required
- Testify on behalf of DOTD in legal proceedings
- Make corrections and provide information as directed by DOTD
- Perform any other tasks and activities necessary to complete appraisal services

## **Appraisal Review Services**

- Review the title research reports, construction plans, right of way maps, and improvement data for correctness, completeness and usability
- Report any discrepancies to the DOTD Right of Way Project Manager

- Meet with the appraiser and the relocation assistance agent and conduct an on site inspection of each parcel and determine the items which are to be considered realty and the items which are to be considered personally
- Collaborate with the appraiser to determine the appraisal format to be used
- Collaborate with the appraiser in the determination of the need for other valuation experts
- Submit an appraisal plan to DOTD for approval
- After DOTD approval of appraisal and other valuation experts, schedule an onsite meeting
- Verify other valuation experts' reports to determine that they:
  - o Comply with all appropriate laws and regulations
  - o Comply with DOTD policy and procedure
  - Meet scope of work requirements
  - O Contain verification of data, zoning and code requirements and other items affecting compensation determination
- Accept or reject valuation experts' reports
  - o If rejected order corrections or additional information.
- Verify appraisers' reports to determine that they:
  - Comply with all appropriate laws and regulations
  - o Comply with DOTD policy and procedure
  - Meet scope of work requirements
  - O Contain verification of data, zoning and code requirements and other items affecting compensation determination
- Review appraiser's reports for consistency
- Ensure that damages and additional compensation are justified and analysis of same is provided
- Consult with DOTD relocation assistance officer to discuss and avoid any duplication of compensation or payment
- Accept or reject appraisers' reports
  - o If rejected order corrections or additional information
- Prepare written report (review sheet) that
  - o Identifies the appraisal reports reviewed
  - o documents their findings and conclusions
- Maintain documentation of the review process
- Notify the right of way project manager of any information that develops that requires changes in valuation experts' scope of services/contracts
- Determine just compensation
- Electronically transmit appraisal reports and review sheets to DOTD
- Testify on behalf of DOTD in legal proceedings
- Make corrections and provide information as directed by DOTD
- Perform any other tasks and activities necessary to complete appraisal review services

# **Right of Way Staking Services**

#### The Consultant shall:

- Mail property owner notification letter to each property owner, except in those cases when it is the property owner who is making the request for staking
- Make necessary arrangements with property owner(s) to gain entry to the property subject of staking
- Provide right of way staking services if directed by DOTD
- Leave subject property subject of staking in same condition as before
- Notify DOTD when requested services are complete
- Make corrections, revisions, and provide information for right of way survey services as directed by DOTD
- Perform other tasks and activities necessary to complete the right of way staking services

## **Acquisition Services**

- Send out project notification letter to each owner via U.S. Mail
- Include in above mailing a copy of DOTD booklet *Acquisition of Right of Way and Relocation Assistance* for each owner
- Examine the title research report to verify accuracy, completeness and usability
- Examine the right of way maps and construction plans to verify accuracy, completeness and usability
- Examine the appraisal report(s) and review sheet for accuracy, completeness and usability
- Notify supervisor of any discrepancy found in any of the above items
- Prepare offer packages including:
  - O Just compensation offer letter, including summary of compensation
  - o Right of way map sheet
  - Construction plan sheet
  - O DOTD booklet Acquisition of Right of Way and Relocation Assistance
  - o Draft copy of deed
- Set up owner and parcel screens in AARS system
- Update parcel status in AARS as necessary
- Determine the need for a mortgage certificate and order same if needed
- Set an appointment for the initial contact
- Meet with property owner(s) residing in state
  - Present offer package and initiate negotiations
- Mail offer package to out-of-state property owner(s)
- Maintain a log of each contact with each owner
- Prepare administrative settlement reports
- Clear encumbrances

- Prepare and submit to DOTD voucher packages requesting checks to close acquisition transactions
- Deliver acquisition checks to property owners
- Request right of way staking services as required
- Testify on behalf of DOTD in legal proceedings
- Make corrections and provide information as required by DOTD
- Perform any other tasks and activities necessary to complete acquisition services

## **Expropriation Support Services**

#### The Consultant shall:

- Prepare suit packages as necessary including:
  - o Negotiator's summary report
  - o Copy of just compensation letter as certified by agent
  - Copy of the mortgage certificate.
- Continue negotiations as may be required by DOTD
- Make corrections and provide information as directed by DOTD
- Perform any other tasks and activities necessary to complete expropriation support services

## **Project Production Support Services**

- Prepare and maintain project master file and parcel files
- Prepare certificate of authority to expropriate
- Prepare project notification letters
- Prepare just compensation offer letters with summary of compensation
- Prepare consultant cover letters
- Prepare draft of act of sale or servitude agreement
- Prepare final act of sale or servitude agreement (5 copies)
- Send original copy of act of sale or servitude agreement to the clerk of court for recordation
  - Request Certificate of Recordation
- Prepare voucher and pay invoice from clerk of court when received
- Prepare coding sheet for same
- Maintain a daily watch on project funding balance
- Enter contract data and parcel data into LaGov
- Prepare closing package for DOTD signing to include:
  - o Triplicate original copies of act of sale or servitude agreement
  - Attach half size of applicable right of way map sheet to each copy of act of sale or servitude agreement
  - o Copy of the voucher requesting payment
  - O Copy of Form W-9 for each vendor signing
  - o Copy of Corporate Resolution (Inc.) where required for each deed

- O Copy of Articles of Organization (LLC) where required for each deed
- Copy of coding sheet
- Send original copy of act of sale or servitude agreement along with copy of payment voucher and coding sheet to Financial Services to order payment.
- Make data entries into AARS System
- Prepare and forward to Financial Services a voucher to request check for just compensation amount for deposit into the registry of the court
- Prepare coding sheet for same
- Prepare and forward to Financial Services a voucher to request check for advance court costs for deposit into the registry of the court
- Prepare a coding sheet for same
- Prepare suit packages for transmittal to Legal
- Prepare uneconomic remainder (UR) packages for transmittal to Property Management
- Prepare bid booklets for improvement demolition/removal for transmittal to Property Management
- Process demolition contracts for signatures
- Prepare vouchers for payment of improvement demolition/removal contracts
- Order payment for improvement demolition/removal contacts from Financial Services
- Send payment to improvement demolition/removal contractors
- Prepare contracts for asbestos inspection and assessment
- Prepare vouchers for payment of asbestos inspection and assessment contracts
- Order payment from Financial Services
- Send payment to asbestos inspection and assessment contractors
- Make corrections and provide information as directed by DOTD
- Perform any other tasks and activities necessary to complete project production support services

# PART III: PRELIMINARY PLANS

As directed by the DOTD, this part of the Contract shall consist of all services required to perform the following:

### **Preliminary Design**

The Consultant shall be responsible for all engineering services required for preparing the preliminary design, for the completion of preliminary roadway plans and for the construction cost estimates, for the design of a new two lane roadway in the Village of Choudrant in Lincoln Parish. This new roadway will be a distance of approximately one (1) mile and will run parallel with I-20 and connect Hwy 820 with Pipes Road to the west. The new two lane facility will be a rural roadway (RL-3 classification) consisting of twelve (12') lanes and eight (8') shoulders, with curb and gutter. The intersections will be studied as described in the **Traffic Engineering** section. will consist of roundabouts.

The project shall be under a schedule for completion which shall be in conformity with the contract time specified in the **Contract Time** Section. The design of the project will be in accordance with the Selected Alignment shown in figure 4 (page 2-3) of the approved Environmental Document.

The Consultant shall provide engineering design roadway plans for the project including, but not limited to the following:

- Title Sheet
- Typical Sections and Details
- Summary of Estimated Quantities
- Miscellaneous Details & General Notes
- Reference Points and Bench Mark Elevation Sheets
- Temporary Erosion Control
- Existing Drainage Area Map
- Drainage Map
- Temporary Construction Signs ,Detour Layout and Suggested Sequence of Construction
- Cross Sections (earthwork)
- Geometric Details
- 1"=50', Plan-Profile Sheets
- Special Details

Environmental approval was previously obtained and no effort is anticipated herein. The Consultant's assistance with permit application drawings, if required, will be established by a fully executed Supplemental Agreement or Extra Work Letter.

### **Subsurface Investigation**

The selected firm will perform geotechnical exploration services for the captioned project, seven (7) shallow borings, sampling, and laboratory testing along the project alignment in Lincoln Parish. The project alignment includes construction of new pavement, and new embankment. The following table summarizes the anticipated boring schedule:

Structure/Improvement Type	Boring Spacing	Number of Borings	Boring Depth (ft)
	(ft)		
Pavement	750	7	8

The selected firm is required to submit a sub-grade soil survey with samples taken approximately every 750 feet along the new roadway alignment. The depth of each boring shall be at least 8 feet below the finished roadway elevation or natural ground, whichever yields the greater boring depth. Allowable sampling methods include undisturbed Shelby tube sampling, as well as disturbed auger and direct-push sampling methods. The different layers of the soil strata shall be identified every foot or strata break at the discretion of the lab engineer of record using the AASHTO classification system and the following tests: Atterberg limits, sieve analysis, hydrometer tests, percent

organics, moisture content, as well as consolidation testing, pH and resistivity when applicable.

The soils investigations, sampling and testing services to be provided shall include, but are not limited to:

# **Geotechnical Exploration and Investigations**

The geotechnical investigations, sampling, and testing services to be provided shall include, but are not limited to:

- Field Reconnaissance (including rights of entry, utility locations, access, etc.);
- Mobilization/demobilization;
- Shallow Soil borings;
- Water table elevations with duration of reading;
- GPS Latitude and Longitude of borings to within 10 ft (3 m) accuracy;
- Laboratory Determination of Moisture Content of Soils (AASHTO T 265);
- Atterberg Limits (DOTD TR 428);
- Organic Content (DOTD TR 413);
- Classification of Soils;
- Shallow borings (ASTM D 3282(AASHTO method));
- Drafting of subgrade soil surveys; and
- Traffic Control.

# **Drilling and Sampling**

Shallow soil borings for sub-grade soil surveys can be made utilizing either hollow-stem augers, continuous-flight augers, or direct push sampling methods. Any other method shall be approved by the DOTD Pavement & Geotechnical Services Administrator prior to it being implemented.

### **Other Considerations**

The natural ground in elevation at the location of each borehole shall be determined to within 6 in. (0.15 m). These elevations may be determined utilizing elevations of existing structures for landmarks that may be shown on the plans supplied. If DOTD has established a temporary benchmark (TBM) at the site, it shall be used in lieu of elevations shown on the plans.

Unless otherwise stated, it will be the responsibility of the Consultant to obtain consent from the respective landowners in order to enter onto private property. The process for contacting landowners and documentation for Consultant Entry will be discussed at the Consultant Kickoff meeting with DOTD personnel. In the case that consent is not granted, the Consultant shall contact the project manager to execute a Forced Entry, as per Louisiana Revised Statute 48:217. Forced entry access will be granted via written notice from the Bossier Parish Project Manager.

# **Deliverables**

Unless specified by the Project Manager, it will be the responsibility of the Consultant to obtain 3 or 4 mil polyester double matte film for use in reporting the geotechnical exploration results. The DOTD Pavement & Geotechnical Services Section will provide one sheet to the Consultant for use as an example of each format. The lettering used on the profiles shall be of such size and clarity that the legibility of data can be maintained when reduced to fifty (50) percent of its original size. Soil profiles shall be grouped on the plan sheets according to the Construction Project Number(s). In addition to the paper submittal, electronic logs that can be imported into the gINT software for the electronic storage of the soil boring and CPT logs shall be submitted. All project deliverables shall become the property of DOTD upon successful completion of the above captioned project.

All reported test results, including each profile sheet, shall be sealed and manually signed and dated by the Professional Engineer in responsible charge of testing. The DOTD Pavement and Geotechnical Services Section will review the completed boring logs for completeness and accuracy prior to their final submittal.

### **Other Technical References**

The DOTD has used the following as technical references and guidelines in the design and construction monitoring of Geotechnical features for DOTD projects in the past and are recommended for use by the Geotechnical Engineering Consultant community. This list is not all-encompassing and other publications may be used and referenced. Additions will be made as this Document is updated.

- Subsurface Investigations Manual, Publication No. FHWA HI-97-021, Nov. 1997;
- Manual On Subsurface Investigations, Published by AASHTO, 1988;
- AASHTO Standard Specifications for Transportation Materials and Methods of Sampling and Testing, PART I SPECIFICATIONS and PART II TESTS, current edition;
- ASTM Procedures and Regulations, current edition.

### **Traffic Engineering**

Data Collection - The Consultant shall use the traffic data previously compiled in the July 2010 Traffic Noise Analysis for State Project Number 700-31-0121 for the Choudrant I-20 Service Road.

Traffic Analyses - The Consultant shall follow EDSM VI.1.1.5 and perform roundabout studies for the following Alternatives:

#### Alternative 1:

• The intersection of LA 820 and LA 145 (Elm St)

- The intersection of the proposed service road and LA 820 (600 ft North of the intersection of LA 145 (Elm St) and LA 820)
- The intersection of Pipes Road and the proposed service road

#### Alternative 2:

• The intersection of LA 820, LA 145 (Elm St), and the proposed service road with a realignment of the proposed service road to terminate at this intersection

Before start of the roundabout designs tThe above analyses will need to be submitted to the DOTD Traffic Engineering section for approval of intersection control. If roundabouts are warranted Tthe design of the roundabouts shall follow EDSM V1.1.1.6

# **PART IV: FINAL PLANS**

# **Final Design**

The Consultant shall be responsible for producing Final Plans for construction of the roadway as previously described. During the progress of preliminary and final design phases of work, standard intermediate submittals will be made to the DOTD for review and comment. Comments received as a result of the submittals will be discussed with the DOTD and incorporated into the subsequent submittal of that respective phase as warranted.

All design and drawings will comply with the requirements of the latest DOTD Road Design Manual and the current edition of the DOTD Standard Specifications. Where it is absolutely necessary to depart from the Standard Specifications or augment them, Special Provisions and/or Non-Standard (NS) Item Number requests shall be provided to DOTD. All drawings will be developed using MicroStation and CadConform and shall comply with the DOTD CADD Standards.

## **ELECTRONIC DELIVERABLES**

The Consultant hereby agrees to produce electronic deliverables in conformance with the DOTD Software and Deliverable Standards for Electronic Plans document. The Consultant is also responsible for ensuring that Sub-Consultants submit their electronic deliverables in conformance with the same standards. The LaDOTD Software and Deliverable Standards for Electronic Plans document and LaDOTD CAD Standards Downloads are available via links on the DOTD web site.

The Consultant shall apply patches to CAD Standard Resources and install incremental updates of software as needed or required. The Consultant hereby agrees to install major updates to software versions and CAD Standard Resources in a timely manner. Major updates of CAD standards and software versions shall be applied per directive or approval of the DOTD Design Automation Manager. Such updates will not have a significant impact on the plan development time or project delivery date, nor will they require the Consultant to purchase additional software. Prior to proceeding with plan

development, the Consultant shall contact the Project Manager for any special instructions regarding project-specific requirements.

In the event that any electronic standard conflicts with written documentation, including DOTD plan-development manuals, the electronic standard typically governs. The Consultant is responsible for contacting the Project Manager should questions arise.

The consultant shall upload (or check in) electronic deliverables directly into the DOTD ProjectWise repository at each plan delivery milestone. Consultants are responsible for performing certain operations at each milestone including, but not limited to, the following:

- Upload (or check in) CAD plan deliverables to the discipline "Plans" folder
- Apply and maintain indexing attributes to CAD plans (and other deliverables as needed)
- Publish PDF format plan submittals in ProjectWise using automated publishing tools
- Digitally sign PDF format plan submittals in ProjectWise according to DOTD standards and procedures (Final Plans, Revisions, Change Orders). Signatures shall be applied in signature blocks provided with electronic seals and Title Sheets.

Additionally, after reviewing deliverables for each submittal milestone, the Project Manager will notify the consultant regarding the availability of two automatically-generated informational reports in ProjectWise. These reports document the completion status and other information regarding indexing attributes and CAD standards. Consultants shall take these reports into account and make any necessary adjustments to plans before the next submittal milestone; or sooner if directed by the Project Manager.

# QUALITY CONTROL/QUALITY ASSURANCE

The DOTD requires the Consultant to develop a Quality Control/Quality Assurance program or adopt DOTD's program; in order to provide a mechanism by which all construction plans can be subject to a systematic and consistent review. Consultant's must ensure quality and adhere to established design policies, procedures, standards and guidelines in the preparation and review of all design products. The DOTD shall provide limited input and technical assistance to the Consultant. The Consultant's plans shall meet or exceed DOTD's Construction Plans Quality Control / Quality Assurance Manual and EDSM No. Volume I. 1.1.24 on Plan Quality. The Consultant shall transmit plans with a DOTD Quality Control/Quality Assurance Checklist, Documentation Manual for Project Delivery, and a certification that the plans meet the DOTD's quality standards.

# ITEMS TO BE PROVIDED BY THE DOTD

a. Line and Grade Study: July 2010

- b. Final Environmental Assessment (FONSI): Choudrant I-20 Service Rd, Lincoln Parish, Louisiana, S.P. No. 700-31-0121, F.A.P. No. DE-3105(506), November 2010
- c. Access to Standard Plans
- d. Traffic Data (ADT)

#### ADDITIONAL SERVICES

The scope of services, compensation and contract time for future engineering services will be established by Supplemental Agreement(s) for the following:

Stage 3: Design

Part I: Surveying Services

- (b) Title Research Reports
- (d) Title Updates
- (e) Right-of-Way Maps
- (f) Title Take-Offs

Stage 5: Construction

Part I: Construction Support

All additional sub-consultants required to perform these services are subject to approval as per RS 48:290.D prior to execution of the supplemental agreement.

### **CONTRACT TIME**

The overall contract time to complete this project is estimated to be **20 months.** The Consultant will proceed with the services upon issuance of the Notice to Proceed from the **Entity.** The Consultant will submit a project schedule to the Entity and the Project Manager for review and approval prior to the Notice to Proceed.

### **COMPENSATION**

Compensation to the Consultant for services rendered in connection with this Contract will be a non-negotiated lump sum in the amount of \$542,724.616,859. Additional compensation for Titlework and Right-of-Way services will be compensated at a cost per unit work.

#### REFERENCES

All services and documents will meet the standard requirements as to format and content of the DOTD; and will be prepared in accordance with the latest applicable editions, supplements and revisions of the following:

- 1. AASHTO Standards, ASTM Standards or DOTD Test Procedures
- 2. DOTD Location and Survey Manual
- 3. DOTD Roadway Design Procedures and Details
- 4. DOTD Design Guidelines

- 5. DOTD Hydraulics Manual
- 6. DOTD Standard Specifications for Roads and Bridges
- 7. Manual of Uniform Traffic Control Devices
- 8. DOTD Traffic Signal Design Manual
- 9. National Environmental Policy Act (NEPA)
- 10. National Electric Safety Code (NESC)
- 11. National Electric Code (NFPA 70)
- 12. DOTD Environmental Impact Procedures (Vols. I-III)
- 13. A Policy on Geometric Design of Highways and Streets (AASHTO)
- 14. DOTD Construction Contract Administration Manual
- 15. DOTD Materials Sampling Manual
- 16. DOTD Bridge Design Manual
- 17. Consultant Contract Services Manual
- 18. Geotechnical Engineering Services Document
- 19. Bridge Inspectors Reference Manual/90
- 20. DOTD Stage 1 Planning/Environmental Manual of Standard Practice
- 21. Code of Federal Regulations 29 CFR 1926 (OSHA)

Follow link below for the individual reference links:

http://webmail.dotd.louisiana.gov/ContWEB.nsf/b88769326453bef886256fe00047183a/18fc2860512aba5886257a62006133b8?OpenDocument

# MINIMUM PERSONNEL REQUIREMENTS

The following requirements must be met by the Prime-Consultant at the time of submittal:

- 1. At least one Principal of the Prime-Consultant shall be a Professional Engineer registered in the State of Louisiana.
- 2. At least one Principal or other Responsible Member of the Prime Consultant must be a Professional Civil Engineer, registered in the State of Louisiana with a minimum of five years experience in preparation of roadway plans.
- 3. In addition to the above requirements, the Prime-Consultant must also employ on a full-time basis, or through the use of a Sub-Consultant(s):
  - a. One Professional Civil Engineer Registered in the State of Louisiana with five years of Geotechnical experience and a corresponding support staff.
  - b. One Professional Land Surveyor Registered in the State of Louisiana, with at least five years in conducting topographic and property surveys, and preparing right-of-way maps for DOTD, and a corresponding support staff.
  - c. One Professional Traffic Operation Engineer, (PTOE), Registered in the State of Louisiana, with at least five years of traffic analysis experience and a corresponding support staff.

- d. Appraisal Manager: Must be a Louisiana Licensed General Appraiser pursuant to the Louisiana Licensed Real Estate Appraiser Law with a minimum of five years experience in highway right-of-way appraisal.
- e. Negotiation and Acquisition Manager: A baccalaureate degree plus five years full time professional experience or eight years full time professional experience in the right of way or relocation assistance fields as an employee or a consultant for an expropriation agency or other governmental agency.

Training Certifications/Certifications of Compliance must be submitted with and made part of the Consultants DOTD Form 24-102 for all Personnel Requirements listed herein.

### **EVALUATION CRITERIA**

The general criteria to be used by DOTD (when applicable) in evaluating responses for the selection of a Consultant to perform these services are:

- 1. Consultant's firm experience on similar projects, weighting factor of 3;
- 2. Consultant's personnel experience on similar projects, weighting factor of 4;
- 3. Consultant's firm size as related to the estimated project cost, weighting factor of 3; \*
- 4. Consultant's past performance on similar DOTD projects, weighting factor of 6; \*\*
- 5. Consultant's current work load with DOTD, weighting factor of 5;
- 6. Location where the work will be performed, weighting factor of 6;
- \*A firm with a ratio of 5 or greater as per the Departments Firm Size Chart will receive a rating of 2.
- \*\* A combination of the Survey (SV/LS) 30%, Road Design Rural (RR) 65% and Geotechnical Design (GD) 5% performance rating shall be used for this project.

### Complexity Level – (**moderate**)

Consultants will be evaluated as indicated in Items 1-6. The evaluation will be by means of a point-based rating system. Each of the above criteria will receive a rating on a scale of 0-4. The rating will then be multiplied by the corresponding weighting factor. The firm's rating in each category will then be added to arrive at the Consultant's final rating.

If Sub-Consultants are used, the Prime Consultant must perform a minimum of 51% of the work for the overall project. Each member of the Consultant/Team will be evaluated on their part of the contract, proportional to the amount of their work. The individual team member ratings will then be added to arrive at the Consultant/Team rating.

### **Communication Protocol**

DOTD's Project Evaluation Team will be responsible for performing the above described evaluation, and will present a short-list of the three (if three are qualified) highest rated

Consultants to the Secretary of the DOTD. The Secretary will make the final selection. Below are the proposed Team members. DOTD may substitute for any reason provided the members meet the requirements of R.S. 48:291.

- 1. Alan Dale Ex officio
- 2. Peggy Jo Paine Project Manager
- 3. Darrell Moore
- 4. Jeff Brown
- 5. Harold Cranfield
- 6. Mel Hicks

# Rules of Contact (Title 48 Engineering and Related Services)

These rules are designed to promote a fair, unbiased, legally defensible selection process. The LA DOTD is the single source of information regarding the Contract selection. The following rules of contact will apply during the Contract selection process and will commence on the date of advertisement and cease at the contract execution of the selected firm. Contact includes face-to-face, telephone, facsimile, Electronic-mail (E-mail), or formal written communications. Any contact determined to be improper, at the sole discretion of the LA DOTD, may result in the rejection of the submittal (24-102):

- A. The Consultant shall correspond with the LA DOTD regarding this advertisement only through the LA DOTD Consultant Contracts Services Administrator;
- B. Neither the Consultant, nor any other party on behalf of the Consultant, shall contact any LA DOTD employees, including but not limited to, department heads; members of the evaluation teams; and any official who may participate in the decision to award the contract resulting from this advertisement except through the process identified above. Contact between Consultant organizations and LA DOTD employees is allowed during LA DOTD sponsored one-on-one meetings;
- Any communication determined to be improper, at the sole discretion of the LA DOTD, may result in the rejection of submittal, at the sole discretion of the LA DOTD;
- D. Any official information regarding the project will be disseminated from the LA DOTD'S designated representative on the LA DOTD website. Any official correspondence will be in writing;
- E. The LA DOTD will not be responsible for any verbal exchange or any other information or exchange that occurs outside the official process specified herein.

By submission of a response to this RFQ, the Consultant agrees to the communication protocol herein.

# **CONTRACT REQUIREMENTS**

The selected Consultant will be required to execute the contract within 10 days after receipt of the contract.

**INSURANCE** - During the term of this contract, the Consultant will carry professional liability insurance in the amount of \$1,000,000. The Prime-Consultant may require the Sub-Consultant(s) to carry professional liability insurance. This insurance will be written on a "claims-made" basis. Prior to executing the contract, the Consultant will provide a Certificate of Insurance to DOTD showing evidence of such professional liability insurance.

**AUDIT** - The selected Consultant/Team will allow the DOTD Audit Section to perform an annual overhead audit of their books, or provide an *independent* Certified Public Accountant (CPA) audited overhead rate. This rate must be developed using Federal Acquisition Regulations (FAR) and guidelines provided by the DOTD Audit Section. In addition, the Consultant/Team will submit semi-annual labor rate information, when requested by DOTD.

The selected Consultant/Team will maintain an approved Project Cost System, and segregate direct from indirect cost in their General Ledger. Pre-award and post audits, as well as interim audits, may be required. For audit purposes, the selected Consultant/Team will maintain accounting records for a minimum of five years after final contract payment.

Any Consultant currently under contract with the DOTD and who failed to meet all the audit requirements documented in the manual and/or notices posted on the DOTD Consultant Contract Services Website (<a href="www.dotd.louisiana.gov">www.dotd.louisiana.gov</a>), will not be considered for this project.

# SUBMITTAL REQUIREMENTS

One original (**stamped original**) and **five** copies of the DOTD Form 24-102 must be submitted to DOTD. All submittals must be in accordance with the requirements of this advertisement and the Consultant Contract Services Manual. Any Consultant/Team failing to submit any of the information required on the 24-102, or providing inaccurate information on the 24-102, will be considered non-responsive.

Any Sub-Consultants to be used, including Disadvantaged Business Enterprises (DBE), in performance of this Contract, must also submit a 24-102, which is completely filled out and contains all information pertinent to the work to be performed.

The Sub-Consultant's 24-102 must be firmly bound to the Consultant's 24-102. In Section 8, the Consultant's 24-102 must describe the **work elements** to be performed by the Sub-Consultant(s), and state the approximate **percentage** of each work element to be subcontracted to each Sub-Consultant.

Name(s) of the Consultant/Team listed on the 24-102, must precisely match the name(s) filed with the Louisiana Secretary of State, Corporation Division, and the Louisiana State Board of Registration for Professional Engineers and Land Surveyors.

The DOTD Form 24-102 will be identified with **State Project No. H.004608**, and will be submitted **prior to 3:00 p.m. CST** on **Tuesday**, **January 2922**, **2013**, by hand delivery or mail, addressed to:

Department of Transportation and Development Attn.: Mr. Alan Dale, P.E. Consultant Contracts Services Administrator 1201 Capitol Access Road, **Room 405-T** Baton Rouge, LA 70802-4438 or Telephone: (225) 379-1401

DOTD reserves the right to revise any part of the RFQ by issuing an addendum to the RFQ at any time. Issuance of this RFQ in no way constitutes a commitment by DOTD to award a contract. DOTD reserves the right to accept or reject, in whole or part, all Qualification Statements submitted, and/or cancel this announcement if it is determined to be in DOTD's best interest. All materials submitted in response to this announcement become the property of DOTD, and selection or rejection of a submittal does not affect this right. DOTD also reserves the right, at its sole discretion, to waive administrative informalities contained in the RFQ.

**REVISIONS TO THE RFQ**